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| 10/840,237 | 05/07/2004 | Toshiaki Katano | 2004_0696A | 9673 |
| 513 7590 12/28/2007 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021 | | | EXAMINER DAFTUAR, SAKET K | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/840,237

Applicant(s)

KATANO ET AL.

Examiner

Saket K. Daftuar

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 05/07/04 - 02/23/06
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. Claims 1-30 are presented for the examination.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed and received.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-14 and 27-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11 and 27 recites the limitation "a home appliance comprising ". It is not clear whether claim 11 and 27 are "home appliance" claims or message processor claims. There is insufficient antecedent basis for this limitation in the claim.

Claims 12 and 28 recites the limitations "a program" in "database storing means". It is not clear what applicant is intended to cover and it is unclear that how a software program has a physical structures, such as database, to store a data structure or data. There is insufficient antecedent basis for this limitation in the claims.

Claims 13-14 and 29-30 depend upon independent claims 12 and 28, respectively. Therefore, claims 13-14 and 29-30 also has an insufficient antecedent basis for the same limitation in the claims.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-14 and 28-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. .

Claims 12 and 28 are directed to a software program of implementing a process by communicating a message with external device. The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Claims 1, 3, and 8 are directed towards an apparatus for implementing a software process as disclosed in claims 12 and 28. It appears that claims could be implemented using software only as it is described in claims 12 and 28. Therefore, claims 1, 3 and 8 also lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Claims 2, 4-7, 11, 13-14, and 29-30 are dependent claims dependent upon independent claims 1, 3, 8, 12, and 28, respectively. Therefore, claims 2, 4-7, 11, 13-14, and 29-30 are rejected under same as scope ad discussed in claims 1, 3, 8, 12, and 28, *supra*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Merely claiming nonfunctional descriptive material, i.e., abstract ideas stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Arimilli et al US Publication Number 2004/0139305 A1 (hereinafter Arimilli).

As per claim 15, Arimilli discloses a first microcomputer, as the one of the microcomputers, including: message creating means to create the message (I/O command or instruction or operation, see paragraphs 0044-0045); message sending means to send the message created by the message creating means to a second microcomputer, as the another one of the microcomputers (see paragraph 0022); first message writing means to record the message sent by the message sending means in the log memory (see paragraph 0075); a first

database memory to store a first database describing an effective term with respect to each of contents of the message (see paragraph 0075-0076 and Figure 5), the second microcomputer [server, figure 2] including: message processing means to process the message sent by the message sending means depending on the contents of the message (paragraphs 0019, 0022-0023, 0037); identification code attaching means to record, in the log memory, the message which has been recorded in the log memory (paragraphs 0019, 0022-0023, 0037) and whose process by the message processing means has been completed, with a first identification code (see paragraphs 0063-0068) indicating that the message has been processed being attached thereto ;a second database memory to store a second database describing an effective term with respect to each of contents of the message(see paragraph 0075-0076 and Figure 5) ; and first message discriminating means to read out the message from the log memory (see paragraph 0075-0076 and Figure 5) in response to a restart signal received in the second microcomputer after the operation of the second microcomputer is suspended, and to cause the message processing means to process the message (paragraphs 0019, 0022-0023, 0037) to which the first identification code has not been attached and whose effective term has not lapsed, among the readout message, by referring to the second database (see paragraphs 0063-0068, 0075-0076 and Figure 5) , the first microcomputer further including second message discriminating means to read out the message from the log memory(see paragraph 0075-0076 and Figure 5) after the second

microcomputer receives the restart signal, and to cause the message creating means to recreate the message to which the first identification code has not been attached and whose effective term has lapsed, among the message read out from the log memory, by referring to the first database (see paragraph 0075-0076 and Figure 5) .

As per claim 16, Arimilli discloses the first database (see paragraph 0075-0076 and Figure 5) further describes whether the message is to be recreated after lapse of the effective term with respect to each of the contents of the message (see paragraphs 0044-0045); and the second message discriminating means causes the message creating means to recreate the message (see paragraph 0044-0045) to which the first identification code has not been attached (see paragraph 0075-0076 and Figure 5), whose effective term has lapsed and which is to be recreated, among the message read out from the log memory by referring to the first database (see paragraph 0075-0076 and Figure 5).

As per claim 17, Arimilli discloses the second message discriminating means causes the message sending means to send the message to which the first identification code has not been attached, whose effective term has lapsed and which is not to be recreated, among the message read out from the log memory (see paragraphs 0063-0068, 0075-0076 and Figure 5).

As per claim 18, Arimilli discloses second message writing means records the message created by the message creating means in the log memory (see paragraph 0075-0076 and Figure 5); and the first message writing means to

record, in the log memory, the message which has been recorded (see paragraph 0075-0076 and Figure 5) by the second message writing means and whose transmission by the message sending means has been completed (see paragraphs 0063-0068), with a second identification code indicating that the message has been processed (see paragraphs 0063-0068) being attached thereto, the first microcomputer further includes: third message discriminating means to read out the message from the log memory (see paragraph 0075-0076 and Figure 5) in response to a restart signal received in the first microcomputer after the operation of the first microcomputer is suspended, to cause the message sending means to send the message to which the second identification code (see paragraphs 0063-0068, 0075-0076 and Figure 5) has not been attached and whose effective term has not lapsed, among the message read out from the log memory (see paragraphs 0063-0068, 0075-0076 and Figure 5), by referring to the first database, and to cause the message creating means to recreate the message to which the second identification code has not been attached and whose effective term has lapsed (see paragraphs 0063-0068, 0075-0076 and Figure 5).

As per claim 19, Arimilli discloses the first database further describes whether the message is to be recreated after lapse of the effective term with respect to each of the contents of the message (see paragraphs 0063-0068, 0075-0076 and Figure 5); and the third message discriminating means causes the message creating means to recreate the message to which the second

identification code has not been attached (see paragraphs 0044-0045, 0063-0068), whose effective term has lapsed and which is to be recreated, among the message read out from the log memory by referring to the first database.

As per claim 20, Arimilli discloses the third message discriminating means causes the message sending means to send the message to which the second identification code has not been attached, whose effective term has lapsed and which is not to be recreated, among the message read out from the log memory (see paragraphs 0063-0068, 0075-0076 and Figure 5).

As per claim 21 and 22, Arimilli discloses the microcomputers include a master microcomputer (server, see figure 2, block 72 and 100), and a plurality of sub microcomputers for communicating the message with each other, communication of the message between the sub microcomputers being conducted via the master microcomputer (see Figure 3); the first microcomputer is the one of the sub microcomputers (see Figure 3); and the second microcomputer is the master microcomputer (see Figure 2, block 100).

As per claim 23 and 24, Arimilli discloses at least one of the sub microcomputers monitors the operation of the master microcomputer, and sends the restart signal to the master microcomputer if the operation of the master microcomputer is suspended (see paragraph 0088-0089).

As per claim 25 and 26, Arimilli discloses the master microcomputer monitors the operations of the sub microcomputers, and, if the operation of the

one of the sub microcomputers is suspended, sends the restart signal to the operation-suspended sub microcomputer (see paragraph 0088-0089).

As per claims 1-2 and 11, claims 1-2 and 11 do not teach or further define over the limitation as recited in claims 15-16 and 27. Therefore, claims 1-2 and 11 are rejected under same scopes as discussed in claims 15-16 and 27, supra.

As per claims 3-7, claims 3-7 do not teach or further define over the limitation as recited in claims 15-19. Therefore, claims 3-7 are rejected under same scopes as discussed in claims 15-19, supra.

As per claims 8-10, claims 8-10 do not teach or further define over the limitation as recited in claims 15-16 and 23. Therefore, claims 8-10 are rejected under same scopes as discussed in claims 15-16 and 23, supra.

As per claims 12-14 and 28-30, claims 12-14 and 28-30 do not teach or further define over the limitation as recited in claims 15-16. Therefore, claims 12-14 and 28-30 are rejected under same scopes as discussed in claims 15-16, supra.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See accompanying PTO 892 form.

a. Method and Structure for Balanced Queue Communication Between Nodes in a Distributed Computing Application by Piskiel et al US Patent Number 5,916,307.

b. Management of Message Queues by Hamilton et al. US Publication Number 2003/0182464 A1.

11. A shortened statutory period for reply to this non-final action is set to expire **THREE MONTHS** from the mailing date of this action. Failure to respond within the period for response will result in **ABANDONMENT** of the applicant (See 35 U.S.C 133, M.P.E.P 710.02,71002 (b)).

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saket K. Daftuar whose telephone number is 571-272-8363. The examiner can normally be reached on 8:30am-5:00pm M-W.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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SKD



JEFFREY PWU
SUPERVISORY PATENT EXAMINER